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AUTHOR Edler, Kristine Winkle
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ABSTRACT

To investigate prediction as a strategy that can improve reading comprehension, 50 third grade students from Toledo, Ohio, were first divided into experimental and control groups. The 2 groups both read the same 5 basal stories for instruction, were given the same pretest passages, answered 10 comprehension questions, and then followed a 3-day plan. The second day for the experimental group was spent reviewing the vocabulary words, predicting, doing silent reading, and answering the comprehension questions, whereas there were no predictions made in the control group. Results indicated that (1) using predictions did enhance the comprehension of poor readers, but had little or no effect on better readers; (2) using predictions during reading also had an effect on the answering of inferential questions but not on the answering of literal questions. (Two tables of data and 1 figure are included, and 15 references and 2 appendixes containing stories and comprehension questions are attached.) (MS)

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A Thesis

entitled

THE EFFECT OF USING PREDICTIONS ON A READER'S COMPREHENSION

By

Kristine (Winkle) Edler

As partial fulfillment of the requirements
of the Master of Education Degree.

_____
Advisor

_____
Dean of the Graduate School

The University of Toledo
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CHAPTER I

STATEMENT OF THE PROBLEM

"A teacher can serve no greater end than to help a student comprehend, interpret, evaluate and appreciate the written word. For if you have done that, you have given the student a gift that will last a lifetime and make that lifetime more worth living" (Pearson and Johnson, 1978). This is an important quote because it sums up what reading is about; comprehending, evaluating, interpreting and appreciating literature. It's even more interesting that researchers find that teachers spend very little time on comprehension instruction in the classroom (Durkin, 1978-1979). Some researchers and teachers question whether comprehension is teachable while others (Carver, 1987, Pearson and Johnson, 1978) believe it is. Pearson and Johnson (1978) state that we can model comprehension processes for students, provide cues to help them understand what they are reading, guide discussions to help children know what they know, ask pointed, penetrating questions, offer feedback when necessary and generate useful independent practice activities. They find that comprehension is teachable and it is best learned through the help of a well informed teacher. Teachers become informed by reading, learning and practicing.

I have chosen to investigate prediction as a strategy that aids comprehension. Prediction as a strategy is defined as a person's use of knowledge about language and the context in which it occurs to anticipate what is coming (Ferguson and Kennedy, 1985). Prediction allows readers to link old knowledge to new knowledge. As stated in an article by Ferguson and Kennedy, "The knowledge and experience a student brings to what he reads will determine in part, how well he can make accurate predictions and comprehend the material." Readers make predictions based on the prior knowledge they have on a topic, therefore an understanding of prediction demands some study of prior knowledge and comprehension. Prior knowledge is defined as the stored knowledge that a reader has about the topic that is being read (Holmes and Roser, 1987).

Prediction is a questioning strategy that can be used before, during, and after reading. Before the story, students are asked to make predictions based on their prior knowledge of the topic. Teachers may ask questions such as, "What do you think will happen to the character in this story?" or "What do you think the title has to do with the story?" After responses the teacher may ask the readers, "Why do you think that?" The teacher offers probes in order to get the readers to infer what will happen in the story. The students are then actively involved in the story before reading it. Teachers can also stop the students at certain points in the story to

verify any predictions that were confirmed and to predict further based on what was read. This also allows the readers to monitor comprehension and allows them to integrate information as they read. After the story, the readers can discuss the happenings in the story as well as the predictions that were made and verified. Teachers should remember to never refute any predictions that students offer, they all should be recorded (Vacca and Vacca, 1986).

I believe that prediction is a strategy that improves reading comprehension but there is very little research that confirms this belief. My study is designed to answer the following questions:

1. Does prediction improve the comprehension of all third grade readers?
2. Does prediction improve the comprehension of poor readers better than better readers?
3. Once a reader grasps the strategy of prediction, are they able to transfer it from story to story?
4. Does prediction aid in the answering of literal questions more than inferential questions or vice versa?

CHAPTER II

REVIEW OF LITERATURE

This review of the literature will cover the topics of prior knowledge and prediction.

Effects of Prior Knowledge on Comprehension

Recent research has shown that background knowledge has a much stronger effect on reading comprehension then was ever known previously. Readers construct meaning through information given in the text and through information existing in the reader's memory (Beck, 1986). Readers need to use their background knowledge to fill in gaps, make inferences and to compare text information to existing knowledge, otherwise comprehension will be impaired (Beck, 1986).

Little research has been conducted which examined the interaction of prior knowledge and comprehension in children (Lipson, 1983). While doing her research, Lipson (1983), found that young subjects use prior knowledge to help organize new information; that prior knowledge can be used as a context for choosing among alternative interpretations of text meaning; and that prior knowledge contributed to inferential comprehension.

Lipson (1983) conducted a study using thirty-two 4th, 5th and 6th grade students of average or above average reading ability. Sixteen of the children were Catholic and enrolled in a private Catholic school. The other sixteen were Jewish and were enrolled in a private Hebrew day school. The students were given three passages to read. The first passage was a culturally neutral passage titled, "The Ama." The second passage was from the Jewish culture and was titled, "Bar Mitzvah." The third passage was from the Catholic culture and was titled, "First Communion." The students were to read the three passages. The Catholic and Jewish passages had ten recall questions that went along with them. The readers were seen in groups of twenty and were timed on their reading. After the reading, the readers had an interpolated task to control for short term memory. It required them to provide initial blend substitutions in order to complete a short story. Next they had a free recall page where they were to rewrite as much of the story as possible without looking back.

The results of the study were analyzed in three parts: reading time, free recall and probed recall. There were no main effects in reading time but Lipson found that both groups took less time to read the passage that was culturally familiar to them. The subjects recalled more text explicit information after reading a culturally familiar passage. Subjects' recalls contained much more inferred material on the familiar, culturally specific passage. Subjects were

more accurate in their recalls when they had a cultural framework to use. This indicates that on every measure of free recall, subjects were more successful when they had a cultural schema for the topic being read. The children were more successful at responding to probed recall questions on the culturally familiar passage. When offered probes, the subjects were less efficient in storing and retrieving information about the unfamiliar event.

The quantity and accuracy of both explicit and inferential recall were effected by prior knowledge. It appeared that a cultural schema regarding the topic at hand enhanced comprehension (Lipson, 1983). It is an advantage for young readers to possess an accurate, relevant schema regarding the material to be read. The findings support the need for further study regarding the effects of prior knowledge on young children (Lipson, 1983).

Teaching Prior Knowledge

It has been reasoned that a prereading strategy which focused on making connections between prior knowledge and information in print would heighten children's awareness of inferencing possibilities, therefore increasing the likelihood that they would draw inferences spontaneously (Hansen, 1981). Hansen (1981) used two experimental methods to try and improve inferential reading comprehension. One method was a prereading strategy in which children utilized previous experiences to predict events

in the story. The second method gave practice in answering questions which required inferences between text and prior knowledge.

The subjects were twenty-four 2nd grade students from a middle class suburb of St. Paul, Minnesota. The children were all reading at or slightly above grade level. They were divided into three groups of eight. The strategy group focused on integrating text information and prior knowledge before reading. The question group focused on inferential questions. The control group was given traditional story introductions and the typical mix of literal and inferential probes.

Ten stories were taught, each over a four day period. All groups received the same vocabulary instruction on day one. The question and control groups followed the manual's introduction of the story on day two. The strategy group used a weaving metaphor because new information is understood better when we weave it into old information already existing in our brains (Hansen, 1981). Gray paper was used to represent the brain. Three strips of colored paper were used to represent new knowledge. Three important ideas from the story were introduced one at a time by using a two-step procedure. First a question was asked that related some possible previous experiences of the children, and second, the children were required to hypothesize something similar that might happen in

the story. After responding to the questions, the children recorded their own experiences on their brain. Then the hypotheses the children gave were written on the colored strips. The children then wove the colored strips into the brains. Day three was used for guided reading with different questions being asked of the groups. The strategy and control groups answered questions based on the 5:1 ratio of literal/inferential probes that were offered in the manual. The question group did its experimenting during the guided reading. They asked the same inferential questions as the other groups, but the literal questions asked of the other groups were rewritten to require inferences. After the reading, all three groups answered ten written questions on a worksheet. The phonics skills activities suggested in the manual were followed on day four for all of the groups.

A twenty question pretest was given prior to the instruction. The students were given two stories to read and then they were to answer the twenty comprehension questions, which consisted of literal and inferential questions. The posttest was given individually to all of the children. The children had to read silently two expository passages, one being more familiar than the other. Then they orally answered twenty questions while the experimenter recorded the answers. Ten questions could be answered by repeating information explicitly stated in the text and the other ten required inferences to prior knowledge.

At the end of the study the students were measured on free recall. They were to read silently an expository passage and then tell anything that the story made them think of.

On measures related to the stories used for instruction, the question and strategy groups showed superior comprehension when compared to the control group. Familiar stories produced more correct responses than unfamiliar. Literal questions produced more correct responses than inferential questions. On the posttest, the question group did better in terms of referring back and answering questions on the familiar topic. There was no difference on the free recall.

During her study, Hansen (1981) found two of her predictions to be true. She found that by making connections between what is already known and what is in the text does increase the likelihood of readers to draw inferences and requiring children to practice answering inference questions does enhance them to do so spontaneously.

Effects of Prediction on Comprehension

There is some question as to whether prequestions or predictions is a better pre-reading strategy. In his study, Shanahan (1983) tried to show that: 1) prequestions tend to narrow down what readers get out of the reading; and 2) prediction might enhance comprehension without the narrowing problem. The subjects were 188 students in grades three

through six. They were randomly put into these four groups: the control group, which only read the passage; the prequestions only group, which read sixteen prequestions prior to the reading; the individual predictions group, which individually predicted answers to the prequestions in a group; and the group predictions group, which predicted answers to the prequestions as a group. The subjects read a 900 word passage from a third grade level book.

The results of the study were: 1) individual predictions were more effective in enhancing recall than were the group predictions, 2) prequestions were found to exercise no significant impact upon the total amount of recall of children, 3) the prediction groups were superior to the questions only group on cued information out were equal or non-cued information, 4) the control group was better on non-cued information, 5) prequestions with predictions seemed to increase recall on cued information, and 6) the individual predictions group did better than the other three groups.

In conclusion, Shanahan found that prediction seems to be a better strategy than prequestions in directing children's reading because prediction activates a reader's schema and sets a purpose for reading. Readers must find out why their predictions are right or wrong, so it seems that predictions require a more complete reading of the passage (Shanahan, 1983).

Prediction is a sure aid to reading comprehension (Vacca, 1981), but does it aid both good and poor readers in the same way? Anderson and Foertsch (1986) set out to find the answer to this question in their study.

The subjects of their study were 143 6th and 7th graders. They were grouped into high and low reading levels by scores on previously given comprehension and vocabulary tests. Six versions of a 7th grade passage were used. The passages dealt with plants that eat insects. Two versions of the text differed in the degree of signaling. The regular text used signals and the strong signalled text was identical to it except for the transitional sentence that was added to the page that told what the next page would be about. Half of the readers were in the prediction group and the other half were in the no-prediction group. The text given to the prediction group instructed them to make written predictions telling what they thought the next paragraph would be about. They were instructed to not look back or ahead, but to just write a short paragraph. They were given one point for each correct prediction. They were also given one point if they mentioned any of the plants' names in their paragraphs. The no-predictions group was instructed to read each paragraph and not look back or ahead at any time.

Two posttests were given to assess comprehension of the passages. The essay test required the readers to write all that

they could remember about the plants. They were given points based on whether or not they included the five main ideas about each plant. They could earn additional points by adding extra details about the plants. There was a total of 100 possible points. The multiple choice test contained nineteen questions. Each question assessed one of the nineteen paragraphs that were read.

Anderson and Foertsch (1986) found that the strategies used in their study had different effects on comprehension. They found that: 1) the prediction strategy tended to suppress comprehension when students were reading the strong signalled text, 2) the comprehension of the poorer readers was suppressed when they wrote predictions that allowed the copying strategy, but their performance was facilitated when they had to write predictions while using the regular text, 3) the students were about 35 per cent accurate in their predictions when using the regular text and about 84 per cent accurate when using the strong signalled text, 4) the students who consistently came up with more accurate predictions comprehended more than those who were unable to do so, and 5) better readers were facilitated by the strong signalled text while the poorer readers were hindered by it.

Reciprocal teaching is a study developed by Palincsar and Brown (1982). A teacher and students take turns questioning each other about happenings in a text. It also involves other strategies, such as summarizing and predicting. In 1984

Palincsar and Brown conducted a study to do more extensive research on reciprocal teaching.

Thirty-seven 7th grade students were used in the study. Twenty-four of them had reading problems, the other thirteen did not. The twenty-four subjects with reading problems were found to have adequate decoding skills but failed the comprehension measures. These twenty-four subjects were divided into four groups of six. Group one, which had the readers with the lowest comprehension scores received reciprocal teaching. Group two received locating information. Group three received daily assessments but no intervention. Group four received pretests and posttests but were in a normal classroom for reading instruction. The other thirteen subjects were used to provide normative data. They contributed data to the baseline and maintenance sessions and took the posttests.

Thirteen expository 7th grade level passages were used for the training. Forty-five shorter passages, along with ten comprehension questions were used for assessment.

Groups one and two followed this phase of study: 1) variable baseline which was four days for the first two students, six days for the next two and eight days for the last two, 2) intervention, which lasted twenty days, 3) maintenance, which consisted of five days of testing after the training, and 4) long-term follow-up, which was three days of testing eight weeks later.

Group one received reciprocal teaching during the twenty-day intervention. They were put into three groups of two, and worked with an adult teacher. The teacher first introduced the passage and tried to stir up the students' prior knowledge. The students then were asked to make predictions based on the title. The teacher then assigned a student to be the teacher while reading a paragraph. The teacher (for that paragraph) first asked a question, then helped to summarize and offered a prediction or asked for clarification when needed. The adult teacher provided the necessary guidance and provided praise and feedback.

Group two followed a locating information plan, which involved demonstration and practice in test taking. The students were shown where to find the answer to a text explicit question. The teacher demonstrated how to answer a text implicit question and showed the students how to use their prior knowledge to answer script implicit questions. After reading the assessment passages independently, the student and teacher answered the questions together with the text in front of them. Prompts were given to the students to help them find the answer. The students were being taught how to work at finding an answer and how to use their prior knowledge to answer questions.

Palincsar and Brown found that the students responded well to reciprocal teaching. The students improved on their daily assessment passages and on their daily comprehension scores.

Improvement was also found in the ability to summarize, in the ability to predict questions that a teacher might ask and in the ability to detect incongruous sentences found in prose passages.

In view of the research it would appear that readers need to learn strategies in order to aid them in the comprehension process. All of these researchers seem to agree that readers need to learn how to use different strategies in order to improve their comprehension.

The purpose of the present study was to investigate prediction as a strategy to improve reading comprehension.

CHAPTER III

METHODOLOGY

Subjects

The subjects used in the study were fifty third grade students from Riverside Elementary School in Toledo, Ohio. Twenty-five of the students were in the experimental group in one self contained classroom and the other twenty-five were in the control group in another self contained classroom. There was no significant difference in the mean reading score of the two groups as determined by an analysis of variance. Within each classroom the students were randomly divided into groups. There were approximately equal numbers of good and poor readers in each group.

Materials

Teaching. Five passages were used from Stairways, Level Seven (Harcourt Brace Jovanovich, 1987). The passages were all approximately 800 words and were all narrative text. Fry's readability scale was used to determine the readability level of each passage.

Story:	Readability:
"Jasper and the Hero Business"	mid 2nd grade
"Nate the Great and the Missing Key"	late 1st grade
"Sally Ride"	late 2nd grade
"Akimba and the Magic Cow"	late 1st grade
"The Cloud"	late 1st grade

Ten written comprehension questions were given after each story. The ten questions consisted of six literal and four inferential questions. These questions were open ended and required the students to write short answers to the questions. The questions for each story can be found in Appendix A.

Semantic maps and a reading chart were used to teach vocabulary words in both classrooms. Workbook pages and written sentences were used to reinforce vocabulary. The reading chart, along with the workbook were used to teach the necessary skills.

Testing. Two passages from the second grade Ginn Reading Program (1982) were used as the pre and post tests. The passages were approximately 300 words in length and the readability level of both was mid 2nd grade. The passages were titled, "A Visit to a Friend's House" and "Emily's Bunch." There were ten written open ended questions that were to be answered after reading the passages. The students were required to write short answers to each question. The questions consisted of six

literal questions and four inferential questions. The questions can be found in Appendix B.

Instructional Procedures

Experimental Group. Before beginning the instruction the pretest was given. Half of the class was given "Emily's Bunch" and the other half was given "A Visit to a Friend's House." The students read the alternate passages for the post test. They were directed to read the story silently and then read and answer the ten questions.

Each story was taught over a three-day period, fifty minutes of instruction each day per group. Day one was used for vocabulary instruction, development of prior knowledge and the teaching of the skill. The skill was presented in the basal reader prior to the story. The instructions in the basal and on the instructional chart were used to teach the skill. Day two was spent reviewing the vocabulary words, predicting, silent reading and answering the comprehension questions. Day three was spent reading the story orally, reviewing the skill and doing a story related writing activity. Day one and day three were the same for the experimental and control groups. Day two was the experimental day.

To illustrate the instructional strategy, I'm going to go step-by-step through the story, "Jasper and the Hero Business."

Day One: The skill to be taught before reading was adding the "er" and "or" to the ending of words. I followed the basal directions to teach this skill. Sentences on the board were used to teach the nine vocabulary words and the instructional chart was used to review the words. The group then used each word in a sentence on their own, orally. A discussion on heros was then conducted. This was done to familiarize the class with the topic of heroes before the reading. After the discussion two workbook pages were assigned to review the skill and the vocabulary words.

Day Two: The workbook pages were corrected together. The vocabulary words were reviewed prior to reading. Before reading, I posed a question which prompted the class to make predictions. (e.g., I said to the class, "This story is called, 'Jasper and the Hero Business.' In this story Jasper is a boy who wants something. What do you think Jasper might want?" The class then offered their predictions orally while I recorded them. Some of the responses were "Money, to save people, to be a hero." and "He wants people to like him." The students then opened their books and were instructed to read the first page silently to find out what Jasper wanted. Upon completing the reading of the first page I asked, "What does Jasper want?" The class responded with the correct answer, "To be a hero." At the bottom of the first page of the story it said that the kids are going to ask Jasper questions. I said to the class, "What types of questions do you think the kids

are going to ask Jasper?" They responded with these predictions; "What's wrong? Why he's sitting? Do you want to play with us? What's your name? and What are you going to be?" I instructed the class to read the next three pages to find out what questions the kids asked Jasper. The class was asked to stop at two other places in the story to make predictions. After reading the whole story silently, the class and I discussed it together. They then answered the ten written comprehension questions.

Day Three: First, the "er-or" skill was reviewed using the instructional that goes along with the basal. The story was then read orally. The class was then assigned a writing activity that was suggested in the basal reader. They were to pretend they were Jasper and write a paragraph telling other good deeds that could have been done to become a hero. This three-day procedure was repeated for both groups and for all five of the experimental stories.

Control Group

The same pretest passages were used for the control group. Half of the class was given "Emily's Bunch" and the other half was given "A Visit to a Friend's House." They were to read their passage silently and answer the ten comprehension questions.

The control group also used a three-day plan for each story. They followed the basal reader's pre-reading activities, excluding all predictions.

Day One: The skill instruction involved the teaching of the use of the suffixes "er" and "or" by using the instructional chart and following the basal instructions. Sentences were put on the board to teach the nine vocabulary words and the words were also gone over on the chart. Then the class used each vocabulary word in a sentence of their own, orally. A discussion on heroes was then conducted. This familiarized the class with the topic of heroes. After the discussion, two workbook pages were assigned to reinforce the "er-or" skill and the vocabulary words.

Day Two: The two workbook pages were first corrected. Then the class was instructed to open their books to the story. The teacher introduced the story and instructed the class to read the whole story straight through without stopping. No predictions were made at any time. The class discussed the story after completing the reading. They then answered the ten written comprehension questions.

Day Three: The "er-or" skill was reviewed. The story was then read orally. After the reading, the control group was assigned the same writing assignment as the experimental group.

This three-day procedure was repeated for both groups and for each of the five stories. The same amount of instructional time

was used for both the control and experimental groups.

Posttesting

Upon completion of the five stories, a posttest was given. If the readers were given "Emily's Bunch" as a pretest then they were given "A Visit to a Friend's House" as a posttest. If they were given "A Visit to a Friend's House" as a pretest then they were given "Emily's Bunch" as a posttest. Again, they were to read the passages and answer the ten written comprehension questions.

CHAPTER IV

RESULTS

This study examined the effects of making predictions while reading on third grade readers' comprehension. The students read five stories and at the end of each story their comprehension of each passage was assessed. At the conclusion of the study their literal and inferential comprehension was measured to determine general increases in reading comprehension.

Table 1 presents the results of the students' comprehension after reading each story. After reading the first story there was no significant difference between the comprehension of the control group and the prediction group, $F(1,48)=1.449$, $P>.05$. There was, however, a significant difference between the above average and below average readers. The below average readers in the prediction group had the lowest comprehension score.

In story two there was no significant difference between the comprehension score of the control and experimental groups, $F(1,48)=.0658$, $P>.05$. The above average readers in the prediction group had the highest score and the below average readers in the prediction group had the lowest score. There was

Table 1

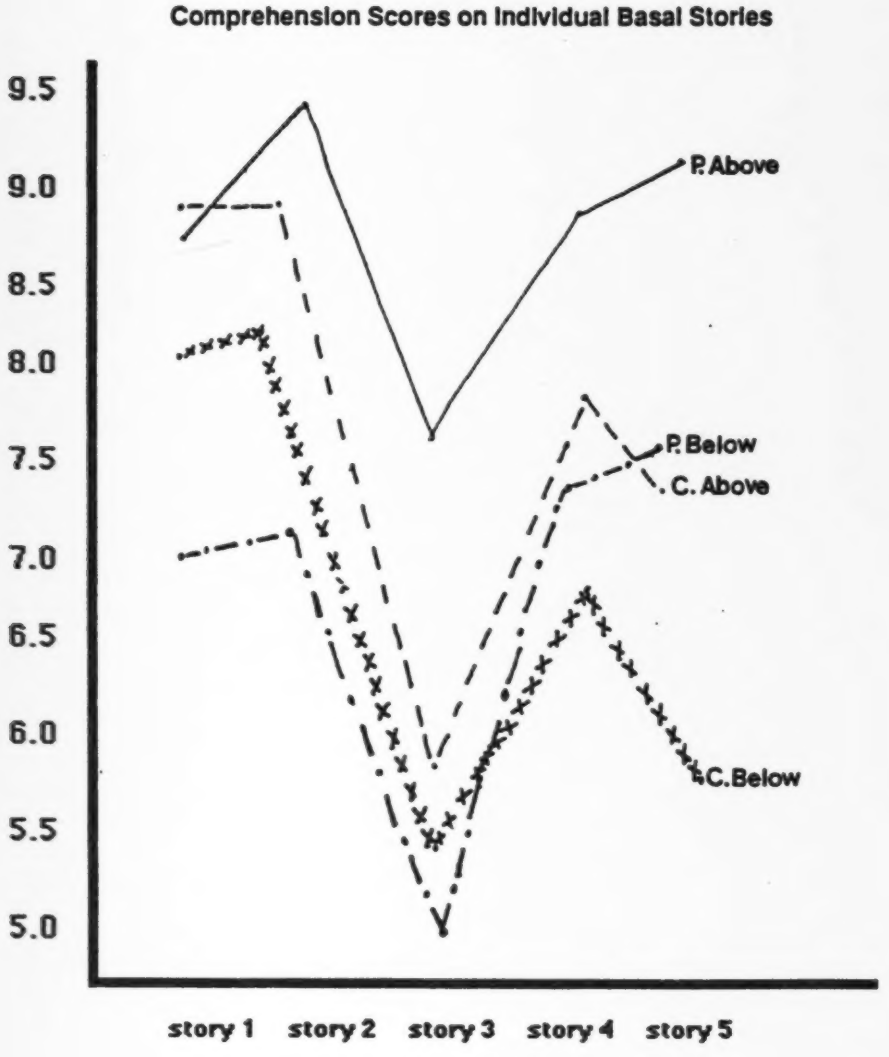
Comprehension Scores on Basal Stories

	Prediction Group			Control Group		
	Above Average	Below Average	Mean	Above Average	Below Average	Mean
Story 1	8.64	7.00	7.25	8.75	8.00	8.25
Story 2	9.45	7.14	8.16	8.75	8.19	8.38
Story 3	7.55	5.00	6.12	5.75	5.44	5.54
Story 4	8.73	7.43	8.00	7.75	6.69	7.04
Story 5	9.18	7.50	8.24	7.13	5.56	6.08

a significant difference between the above-average and below average readers.

In story three there again was no significant difference between the comprehension scores of the prediction and the control groups, $F(1,48)=.509$, $P>.05$. Again, the above average readers in the prediction group had the highest comprehension score and the below average readers in the prediction group had the lowest score. There was a significant difference between the above average and below average readers. This story was an informational story about Sally Ride and all of the students had a difficult time reading this passage. As you can see on the graph,

all of the readers' comprehension scores went down on this story.



After story four, the prediction group had a significant higher comprehension score then did the control group, $F(1,48)=2.678$, $P<.10$. The above average readers in the prediction group again have the highest score. The below average readers in the control group have the lowest score. In this story, the below average readers in the prediction group have a higher score than the below average readers in the control group. Their score is also only .32 of a point behind the above average readers in the control group. In both groups there was a significant difference between the above average and below average readers.

In story five the prediction group has a significant higher comprehension score than the control group, $F(1,48)=11.273$, $P<.062$. The above average readers in the prediction group have the highest score and the below average readers in the control group have the lowest score. The below average readers in the prediction group have a higher score than both the above and below average readers in the control group. They have gone from having the lowest score to surpassing the score of all of the readers in the control group. Again, there was a significant difference between the above average and below average readers in both groups.

By looking at this table, it appears that predictions did aid the comprehension of the below average readers in the prediction group. Their scores appeared to have a gradual increase, so

predictions seem to help after using them over a period of time. These comprehension scores are also depicted on the graph.

Table 2 presents the results of the readers' comprehension scores on the posttest for both literal and inferential questions. For literal comprehension there was no significant difference between the prediction and control groups, $F(1,48)=.781$, $P>.05$. The above average readers in the control group had the highest score in answering literal questions, and the below average readers in the prediction group had the lowest score. The control group had a mean score of 5.21 while the prediction group had a mean score of 4.64.

Table 2

Posttest of Literal and Inferential Comprehension

	Prediction Group			Control Group		
	Above Average	Below Average	Mean	Above Average	Below Average	Mean
Literal	6.36	3.29	4.64	6.38	4.63	5.21
Inferential	5.55	3.50	4.40	4.38	2.50	3.17

For inferential questions there was a significant difference between the groups, $F(1,48)=8.853$, $P<.01$. In answering inferential questions, the above average readers in the prediction group had the highest score and the below average readers in the control group had the lowest score. Here, the prediction group had a mean score of 4.40 while the control group had a mean score of 3.17.

By looking at these scores, it appears that prediction has no effect on answering literal questions but predictions do effect the answering of inferential questions. The below and above average readers in the prediction group had a higher inferential score than did both groups of readers in the control group.

CHAPTER V

DISCUSSION

Results

This study was designed to investigate whether or not prediction has a positive effect on reading comprehension. The control and experimental groups both used the same five basal stories for instruction, but the experimental group used predictions with each story. After each story, both groups were given the same ten questions to answer. Four of the questions were inferential and six were literal. After the five stories, a posttest was given to both groups. The ten posttest questions also consisted of four inferential questions and six literal questions. In the section to follow, the results of the study will be discussed.

The questions used after each story were given to determine specific increases in story comprehension. After the five stories and questions were completed, it seemed that the comprehension of the below average readers in the prediction group was increased. Over the five stories, this group went from having the lowest scores to having a higher score that the low and high ability readers in control group. The below average readers

in the prediction group's scores didn't start to increase until the fourth story. Before the fourth story, they had the overall lowest scores. This leads one to believe that prediction does have a positive effect on a below-average reader's comprehension but it increases the comprehension over a period of time, although not right away. With the exception of the third story, the comprehension scores of the above average readers in the prediction group stayed about the same. Both of the control groups' scores took a gradual decrease.

The posttest given was also used to determine general changes in comprehension ability. The scores were broken into an inferential and literal score to see if using predictions increased one more then the other. The control group had a slightly higher mean score in answering literal questions on the posttest. The difference between the prediction and control groups wasn't that great, only .57 of a point. The prediction group had a higher score in answering inferential questions on the posttest. The difference between the prediction and control groups was greater here, 1.23 points. Stopping the readers during reading and having them confirm and make new predictions seemed to help the readers infer, therefore increasing their inferential score.

These results go along with what Hansen (1981) found. She found that by making connections between known facts and facts in the text seems to increase the likelihood of readers to draw

inferences. Readers also seem to be better able to answer inferential questions after they've had practice in answering them.

Shanahan (1983) used readers in grades three through six in his study. He also found predictions to aid reading comprehension. He found that predictions set a purpose for reading and help activate a reader's schema. Because readers are reading to prove or disprove their predictions, they are required to read the passage more completely.

Anderson and Foertsch (1986) used predictions with signalled and non-signalled text. Their subjects were sixth and seventh graders. Instead of making oral predictions, they were to write their predictions about what they thought the next paragraph would be about. Instead of answering ten questions for a posttest, these readers had to first write an essay of everything they remembered from the text, then they had to answer nineteen multiple choice questions. They found that predictions helped when using the regular text, but they were more accurate in their predictions when using the strong signalled text. They also found that the students who came up more accurate predictions were better able to comprehend the text.

Although all the studies used different methods of using predictions, we all found predictions to aid in the comprehension of some readers in grades three through seven.

Limitations

There were a number of limitations to the study:

1. There were only five stories used in the study. Using a greater number of stories would provide more reliability.
2. Only third grade readers were used in this study, so we don't know how predictions would effect a younger reader's comprehension.
3. The five stories used in the study were primarily narrative with only one of them being somewhat informational. Using an equal number of narrative and informational texts would have shown if using predictions effected both texts the same.

Implications

In this study, it was found that predictions had a positive effect on a below average reader's comprehension but didn't have much of an effect on an above average reader's comprehension. Teachers can modify the use of predictions to fit the needs of both the above and below average reader. Upon completing this study, I have chosen to continue the use of predictions. For the below average readers in my room, I use predictions throughout the story, stopping them at different points in the story. For the above average readers I use one or two predictions at the beginning of the story and allow the readers to read the story straight through. This

seems to help both groups set a purpose for reading and keeps them in touch with the story throughout the reading of it.

If a teacher plans to use the prediction strategy with his or her reading series, predictions may need to be implemented. Although some basal readers do include predictions before each story, they may not be the ones we want to use or it may be necessary to add more than what is given.

Concluding Remarks

The present study attempted to show that using predictions does aid in the comprehension of readers. The results indicate that using predictions does enhance the comprehension of poor readers, and has little or no effect on better readers. Using predictions during reading also had an effect on the answering of inferential questions but not on the answering of literal questions. The studies talked about in this paper indicate that using predictions does effect the comprehension of readers in grades three through seven. There is, however, no research that indicates how using predictions might effect the comprehension of younger readers.

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APPENDIX A

Jasper and the Hero Business

1. What did Jasper want to become?
2. What job did Paul give Jasper to do?
3. What did Jasper hang on the board in his bedroom?
4. Why did Jasper think Mr. Brown was a robber?
5. What did Jasper find as he turned the corner?
6. Why was the little boy crying?
7. Why didn't Jasper keep the money he found?
8. Who did Jasper's mom call a hero?
9. Who gave Jasper the flowers?
10. Why did Jasper pin his picture on the board?

Nate the Great and the Missing Key

1. What is Nate the Great?
2. What was Annie missing?
3. Why was Nate afraid of Fang?
4. Where had Annie left the key?
5. Why did Rosamond write the poem?
6. Where did Nate look for the key?
7. How did the silverware drawer help Nate decide where the key might be?
8. Where was the key hidden?

9. Why wouldn't anybody try to take the keys from Fang's collar?

10. Where did Nate have to sit at the party?

Sally Ride

1. On what spacecraft did Sally Ride go up in?

2. What was Sally's job while in space?

3. How long did the Challenger's second trip last?

4. Why is Sally Ride an American "first?"

5. Where did Sally do her astronaut training?

6. What made you think that a lot of people wantedthe same job as Sally?

7. What things did Sally need to learn in order to become an astronaut?

8. Why was Sally picked for the second Challenger team?

9. What happened June 18, 1983?

10. What did Sally remember most about the flight?

Akimba and the Magic Cow

1. Why was Akimba going to leave the village?

2. What happened when Akimba said "kukuku" to the cow?

3. What happened when Akimba said "bururu" to the sheep?

4. What happened when Akimba said "klaklakla" to the chicken?

5. Why did Bumba say "kukuku" to the cow, "bururu" to the sheep and "klaklakla" to the chicken when Akimba asked him not to?

6. Why did Bumba keep Akimba's animals and give him other ones?

7. What was the last thing that the old man gave Akimba?

8. What did the stick do when Bumba asked it to dance?

9. Why didn't Akimba give Bumba the magic word to stop the broom?

10. Why did Bumba finally give the animals back?

The Cloud

1. What color was the sky when Nina woke up?

2. Where were Nina and her mother going to walk?

3. Why do you think Nina thought the cloud might be like a pillow?

4. Why did Nina's legs hurt?

5. How did the trees in the valley look to Nina as she was standing on the mountain?

6. As Nina got closer to the cloud, why didn't she think it was a cloud?

7. Why was Nina shivering?

8. When Nina was in the cloud, was it fluffy and pretty like she thought it would be?

9. As they walked down the mountain, why did it get warmer?

10. When Nina came back down the mountain, how did the cloud look to her?

APPENDIX B

A Visit to a Friend's House

One day Lisa, who can see, stayed with her friend Pat. Pat can't see. She is blind. Pat and Lisa went for a bike ride. Lisa rode her bike. Pat rode on a bicycle built for two with her sister, Gail. When it was time to eat, they had chicken. Then they had apples. Pat didn't tip her dishes over by accident. She had a special tray. This tray helped keep her dishes from tipping over.

Pat's bedroom was upstairs. She had a bunk bed. Pat had the bottom bunk, so Lisa got to sleep in the top bunk. The next morning Pat showed Lisa her special trick for getting dressed. She matched shape tags. There was a round tag on her blue shirt. There was a round tag on her dark blue slacks, too. The two round shapes matched. That was how Pat knew her colors would match.

Lisa asked, "How do you know which room you're in if you can't see?'

Pat answered, "I know my way around without seeing. I don't get lost. Sometimes if I get mixed up, I just stop and listen. Each room has a special sound."

"If I hear a clock, I know I'm in the living room. If I hear the water in the fish tank, I know I'm in the den. If I hear a bird singing, I know I'm in the kitchen. If I smell food being made, I know I'm in the kitchen, too. That's the room I like the best. It

has the best noises and the best smells."

Questions

1. What is wrong with Pat?
2. How was Pat able to ride a bike?
3. What did the girls have for dinner?
4. Why couldn't Pat tip her dishes over?
5. What was Pat's special trick for getting dressed?
6. What did Pat do when she wasn't sure where she was in the house?
7. How did she recognize which room she was in?
8. Which senses did Pat use to decide where she was?
9. Which was Pat's favorite room and why?
10. Name three things that Pat might not be able to do because of her blindness.

Emily's Bunch

Jeff wanted to go to Herbie's costume party. He wanted to go dressed as Herbie. Jeff thought it was a great idea. Herbie thought it was awful.

Jeff's sister Emily wanted to go as a ghost. Emily thought it was a great idea. Jeff thought it was awful.

"I'll wear my costume tomorrow," thought Emily. "Jeff will see what a great costume it is."

That's just what she did.

The next morning, Emily stood next to Jeff in her costume.

"I can't wait for him to see me," Emily thought.

Nothing happened.

Emily made strange noises and shouted, "Boo."

Jeff went on eating.

She shouted, "Boo," again.

Jeff got up and put his bowl into the sink.

"Aren't you afraid of ghosts?" Emily said.

"Who would be afraid of someone in a pillow case?" asked Jeff.

"I would," Emily said.

"Well," said Jeff, "I happen to know Peg is going as a ghost. So is Tim."

"Then I'll be a clown," said Emily.

"Well, I know Lou is going as a rabbit," said Jeff. "Hank is, too."

"Then what can I be?" asked Emily.

"Nothing," said Jeff.

Emily thought for a while. "I know. I'll be a bunch of grapes. Nobody will be a bunch of grapes. It's a great idea."

"How are you going to be a bunch of grapes?" asked Jeff.

"You'll see," Emily said.

Every night, Emily lay on her bed. She thought about how she was going to be a bunch of grapes. Nothing came to her.

"Oh, rats," she thought. "I'll bet Jeff has his Herbie costume by now."

On the night before the party, Jeff looked into Emily's room.

"I knew it," he said. I just knew it. You're not a bunch of grapes. Wearing a purple bag does not make you a bunch of grapes."

"Oh, yes, it does," said Emily.

"Oh, no, it doesn't," said Jeff.

"Oh yes, it does," said Emily's friends, Julia, Kate, and Beth. They had on costumes that matched Emily's.

"Oh, yes, it does," said Emily's other friends. Ruthy and Joan jumped out. They had on matching costumes, too.

"Wearing a purple bag DOES make you a bunch of grapes. You just need other grapes in your bunch!" said Emily.

Questions

1. Why did Emily and Jeff need costumes?
2. What was Jeff's costume going to be?
3. Why did Emily wear her ghost costume down to breakfast?
4. Why did Emily have trouble finding a good idea for a costume?
5. What did Emily finally decide to be?
6. How did Emily make her costume?
7. Why didn't Jeff like Emily's grape costume?
8. On the night before the party, who was in Emily's room with her?
9. What were Emily's friends wearing?
10. Why were Emily and her friends all wearing purple bags?